GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 24, 2004, 22:29:26 ; Search time 22 Seconds
(without alignments)
734.497 Million cell updates/sec

Title: US-09-900-038A-1
Perfect score: 1590
Sequence: 1 MNYSIIMSVYNEPLNYVRDS.....LINDINILVLKLFGGEKQSD 313

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	234	14.7	301	4	US-09-495-406-15	Sequence 15, Appl
2	216	13.6	534	4	US-09-134-000C-5087	Sequence 5087, Ap
3	214.5	13.5	1056	4	US-09-134-000C-5086	Sequence 5086, Ap
4	210.5	13.2	348	1	US-08-312-387B-3	Sequence 3, Appli
5	210.5	13.2	348	1	US-08-312-387B-11	Sequence 11, Appl
6	210.5	13.2	348	1	US-08-683-426-3	Sequence 3, Appli
7	210.5	13.2	348	1	US-08-683-426-11	Sequence 11, Appl
8	210.5	13.2	348	1	US-08-683-458-3	Sequence 3, Appli
9	210.5	13.2	348	1	US-08-683-458-11	Sequence 11, Appl
10	210.5	13.2	348	2	US-08-878-360-3	Sequence 3, Appli
11	210.5	13.2	348	2	US-08-878-360-11	Sequence 11, Appl
12	210.5	13.2	348	3	US-08-478-140B-3	Sequence 3, Appli
13	210.5	13.2	348	3	US-08-478-140B-8	Sequence 8, Appli
14	210.5	13.2	348	4	US-09-333-412-3	Sequence 3, Appli
15	210.5	13.2	348	4	US-09-333-412-11	Sequence 11, Appl
16	210.5	13.2	348	4	US-09-338-943-3	Sequence 3, Appli
17	210.5	13.2	348	4	US-09-338-943-8	Sequence 8, Appli
18	208	13.1	301	4	US-09-252-991A-33096	Sequence 33096, A
19	200	12.6	270	4	US-09-495-406-25	Sequence 25, Appl
20	199	12.5	416	4	US-09-489-039A-8195	Sequence 8195, Ap
21	190.5	12.0	333	4	US-09-107-532A-5123	Sequence 5123, Ap
22	187.5	11.8	277	4	US-09-107-532A-7213	Sequence 7213, Ap
23	186.5	11.7	327	4	US-09-107-532A-6181	Sequence 6181, Ap
24	184	11.6	303	4	US-09-495-406-17	Sequence 17, Appl
25	176.5	11.1	337	1	US-08-312-387B-5	Sequence 5, Appli
26	176.5	11.1	337	1	US-08-312-387B-12	Sequence 12, Appl
27	176.5	11.1	337	1	US-08-683-426-5	Sequence 5, Appli
28	176.5	11.1	337	1	US-08-683-426-12	Sequence 12, Appl
29	176.5	11.1	337	1	US-08-683-458-5	Sequence 5, Appli
30	176.5	11.1	337	1	US-08-683-458-12	Sequence 12, Appl
31	176.5	11.1	337	2	US-08-878-360-5	Sequence 5, Appli
32	176.5	11.1	337	2	US-08-878-360-12	Sequence 12, Appl
33	176.5	11.1	337	3	US-08-478-140B-5	Sequence 5, Appli
34	176.5	11.1	337	4	US-09-333-412-5	Sequence 5, Appli
35	176.5	11.1	337	4	US-09-333-412-12	Sequence 12, Appl
36	176.5	11.1	337	4	US-09-338-943-5	Sequence 5, Appli
37	171.5	10.8	721	4	US-09-107-532A-6889	Sequence 6889, Ap
38	168	10.6	702	4	US-09-437-277-1	Sequence 1, Appli
39	165	10.4	248	4	US-09-107-532A-4568	Sequence 4568, Ap
40	165	10.4	965	4	US-09-437-277-3	Sequence 3, Appli
41	161	10.1	324	1	US-08-597-236-10	Sequence 10, Appl
42	161	10.1	324	1	US-08-746-682A-10	Sequence 10, Appl
43	160.5	10.1	303	4	US-09-252-991A-29155	Sequence 29155, A
44	160	10.1	281	3	US-08-961-083-196	Sequence 196, App
45	160	10.1	281	4	US-09-536-784-196	Sequence 196, App

ALIGNMENTS

RESULT 1
US-09-495-406-15
; Sequence 15, Application US/09495406
; Patent No. 6503744
; GENERAL INFORMATION:
; APPLICANT: Gilbert, Michel
; APPLICANT: Wakarchuk, Warren W.
; APPLICANT: National Research Council of Canada
; TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
; TITLE OF INVENTION: Gangliosides and Ganglioside Mimics
; FILE REFERENCE: 019633-000110US
; CURRENT APPLICATION NUMBER: US/09/495,406
; CURRENT FILING DATE: 2000-01-31
; PRIOR APPLICATION NUMBER: US 60/118,213
; PRIOR FILING DATE: 1999-02-01
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
; LENGTH: 301
; TYPE: PRT
; ORGANISM: Campylobacter jejuni
US-09-495-406-15

Query Match 14.7%; Score 234; DB 4; Length 301;
Best Local Similarity 28.2%; Pred. No. 1.3e-13;
Matches 88; Conservative 53; Mismatches 135; Indels 36; Gaps 13;

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Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |||:  ||     |:  ::|| :|||  | | |||:|:    :       |||  | ||||:
Db          5 SIILPTYNVE-QYIARAIESCINQTFKDIE-IIVVDDCGNDNSINIAKEYSKKDKRIKII 62

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLDFSATLIELI 123
               ||:|:||  :  : ||::   ||  :| ||    :  :: |: ::|   :        |
Db         63 HNEKNLGLLRARYEGVKVANSPYIMFLDPDDYLELNACEECIKILDEQD-EVDLVFFNAI 121

Qy        124 DQKGNLVYKQRESNK-IYLTNDIRKMLLNRSILAHPTW--CVKKKVFDKLMGYRDLVPVE 180
              :   : ||: : |   |   :  | :: :  |    |   ::||:: :
Db        122 VESNVISYKKFDFNSGFYSKKEFVKKIIAKKNLYWTMWGKLIRKKLYLEA---------- 171

Qy        181 DYDFAIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIYSAILQDFYKEKSYIDIT 240
                ||      | || :   ||| | :    :|| |      :  | :    : | |
Db        172 ---FASLRLEKDVKINMAEDVLLYYPM----LSQAQKIA--YMNCNLYHYVPNNNSICNT 222

Qy        241 K----ITNYFQEYVIKKRYTQQE--LSKYFELKSTPSITIR-KLYICLYLYFKSPLVRRL 293
              |    : |  ||  :   | :|   |:||    |   : |:  ||| :|   :: |:  |
Db        223 KNEVLVKNNIQELQLVLNYLRQNYILNKYC---SVLYVLIKYLLYIQIYKIKRTKLMVTL 279

Qy        294 LINDINILVLKL 305
              |   |||| ||:
Db        280 LAK-INILTLKI 290
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RESULT 2
US-09-134-000C-5087
; Sequence 5087, Application US/09134000C
; Patent No. 6617156
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
; TITLE OF INVENTION: ENTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-032
; CURRENT APPLICATION NUMBER: US/09/134,000C
; CURRENT FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/055,778
; PRIOR FILING DATE: 1997-08-15
; NUMBER OF SEQ ID NOS: 6812
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5087
; LENGTH: 534
; TYPE: PRT
; ORGANISM: Enterococcus faecalis
US-09-134-000C-5087

Query Match 13.6%; Score 216; DB 4; Length 534;
Best Local Similarity 23.3%; Pred. No. 1.3e-11;
Matches 79; Conservative 64; Mismatches 138; Indels 58; Gaps 10;

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Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              || | |||    ::|  ::|||||  |::|  :  |  :  ::|: ||||  :| ||:::
Db        196 SIAMPVYNVEEKWLRLCIDSILNQVYTNWELCMADDASTDPNVKKILTEYQQLDERIRVV 255

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEN-SLDFSATLIEL 122
                |:|  :: : | |: |: ||::  :| ||    : | : :: : ||  ||   :  :
Db        256 FREQNGHISEATNSALAIATGEFVALLDNDDELAINAFYEVVKVLNENPELDLIYSDEDK 315

Qy        123 IDQKGNLVYKQRESNKIYLTNDIRKMLLNRSILAHPTWCVKKKVFDKLMGYR-DLVPVED 181
              ||  ||      |:  :  :    :|| : ::|     :: : ::: |:|      :|
Db        316 IDMDGN------RSDPAFKPDWSPDLLLGTNYISH-LGVYRRSILEEIGGFRKGYEGSQD 368

Qy        182 YDFAIRGALADFK--IGLLNKVLLQYRLNENGISQTNKFKQYIYSA-------------- 225
              ||  :|      |  |  : |||  :|:     :      | | : |
Db        369 YDLVLRFTEKTTKERIKHIPKVLYYWRMLPTSTAVDQGSKGYAFEAGLRAVQDALVRRGI 428

Qy        226 -------------ILQDFYKEK----------SYIDITKITNYFQEYVIKKRYTQQELS 261
                          : |  ||            | |: :  :   |  |  |   |:
Db        429 NGHATHGAANGLYDVYYDIESEKLVSIIIPTKNGYKDVQRCVSSIIE---KTTYQNYEI- 484

Qy        262 KYFELKSTPSITIRKLYICLYLYFKSPLVRRLLINDINI 300
                : :   |  |::  ||  |:  |  |  :  |:|
Db        485 ----IMADNGSTDPKMHE-LYAEFEQQLPGRFFVESIDI 518
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RESULT 3
US-09-134-000C-5086
; Sequence 5086, Application US/09134000C
; Patent No. 6617156
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
; TITLE OF INVENTION: ENTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-032
; CURRENT APPLICATION NUMBER: US/09/134,000C
; CURRENT FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/055,778
; PRIOR FILING DATE: 1997-08-15
; NUMBER OF SEQ ID NOS: 6812
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5086
; LENGTH: 1056
; TYPE: PRT
; ORGANISM: Enterococcus faecalis
US-09-134-000C-5086

Query Match 13.5%; Score 214.5; DB 4; Length 1056;
Best Local Similarity 23.1%; Pred. No. 4.8e-11;
Matches 69; Conservative 58; Mismatches 131; Indels 41; Gaps 6;

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Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |: : |||    ::   | |: ||   ::|  :  |       :|  | :|  :| |||::
Db        566 SVAVPVYNVEEKWLAACVSSLQNQYYENWELCLADDASPSEHIKPMLEKYKELDQRIKVI 625

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFME-ENSLDFSATLIEL 122
               |||  :: : | |: |: |::|  || ||   |   : :: :  : ::||  |  :
Db        626 YREENGHISEATNSALSIATGDFIGFMDNDDELAPQALYEVVKALNTDPTIDFLYTDEDK 685

Qy        123 IDQKGNLVYKQRESNKIYLTNDIRKMLLNRSILAHPTWCVKKKVFDKLMGYRDLV-PVED 181
              | : |      |  |  | ::   :::|| : : |    ||: : :|: |        :|
Db        686 ITENG------RRFNAFYKSDWNPELILNHNYITHFV-VVKRDLLEKVGGLNSAYNGAQD 738

Qy        182 YDFAIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIYSA---ILQDFYKEKSYID 238
              |||  :|      ||  :  ::  :|  |:  :   : | | | |    :|   : :
Db        739 YDFVLRATEQATKIKHIPGMMYHWRAIESSTALNPESKGYAYVAGQKAVQAATERRGLKA 798

Qy        239 ITKITNYFQEYVIKKRYTQQELSKYFELKSTPSITIRKLYICLYLYFKSPLVRRLLIND 297
              :|  ::  | |                                    |||   |:|  :: ||
Db        799 QVEIAEFYGSYKIN----------------------------YLYDHVPMVSLIITND 828
```

RESULT 4
US-08-312-387B-3
; Sequence 3, Application US/08312387B
; Patent No. 5545553
; GENERAL INFORMATION:
; APPLICANT: Gotschlich, Emil C.
; TITLE OF INVENTION: GLYCOSYLTRANSFERASES FOR BIOSYNTHESIS OF
; TITLE OF INVENTION: OLIGOSACCHARIDES, AND GENES ENCODING THEM
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Klauber & Jackson
; STREET: 411 Hackensack Avenue
; CITY: Hackensack
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07601
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/312,387B
; FILING DATE: July 7, 1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Jackson Esq., David A.
; REGISTRATION NUMBER: 26,742
; REFERENCE/DOCKET NUMBER: 600-1-095
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201 487-5800
; TELEFAX: 201 343-1684
; TELEX: 133521
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 348 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-312-387B-3

Query Match 13.2%; Score 210.5; DB 1; Length 348;
Best Local Similarity 27.8%; Pred. No. 2.3e-11;
Matches 86; Conservative 55; Mismatches 123; Indels 45; Gaps 15;

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Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |::: ||    |   |: :::|||  : : :|| |  : | |     ::   |:|||||
Db          6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63
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Qy          64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
               :| ||  |||  : :::|     |||| | |||||: |   :| :  ||::   :
Db          64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy         116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
                | |  | ::| || : :  :  ||:       ||       : : : |  ::: | |
Db         124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy         171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
               : |   ||    ||| |    :  | || :      : |::|||: | :|  :  :|:
Db         184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy         224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
                |  |       |   :: |    | |:     :|  :  :||  |  |     :
Db         235 -EIAQGIQK-------TARNDFLQSMGFKTRFDSLEYRQTKAAAYELPEKDLPEEDFERA 286

Qy         278 YICLYLYFK 286
                ||  ||
Db         287 RRFLYQCFK 295


RESULT 5
US-08-312-387B-11
; Sequence 11, Application US/08312387B
; Patent No. 5545553
;  GENERAL INFORMATION:
;    APPLICANT:  Gotschlich, Emil C.
;    TITLE OF INVENTION:  GLYCOSYLTRANSFERASES FOR BIOSYNTHESIS OF
;    TITLE OF INVENTION:  OLIGOSACCHARIDES, AND GENES ENCODING THEM
;    NUMBER OF SEQUENCES:  12
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Klauber & Jackson
;      STREET:  411 Hackensack Avenue
;      CITY:  Hackensack
;      STATE:  New Jersey
;      COUNTRY:  USA
;      ZIP:  07601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/312,387B
;      FILING DATE:  July 7, 1994
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Jackson Esq., David A.
;      REGISTRATION NUMBER:  26,742
;      REFERENCE/DOCKET NUMBER:  600-1-095
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  201 487-5800
;      TELEFAX:  201 343-1684
;      TELEX:  133521
;  INFORMATION FOR SEQ ID NO:  11:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  348 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-312-387B-11

  Query Match             13.2%;  Score 210.5;  DB 1;  Length 348;
  Best Local Similarity   27.8%;  Pred. No. 2.3e-11;
  Matches   86;  Conservative   55;  Mismatches  123;  Indels   45;  Gaps   15;

Qy           4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
               |:::  ||    |   |: :::||  : : :|| |  : | |    ::   |:|||||
Db           6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63

Qy          64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
               :| ||  |||  : :::|     |||| | |||||: |   :| :  ||::   :
```

```
Db          64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy         116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
                | |  | ::| || : :  :  ||:       ||       : : : |  ::: | |
Db         124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy         171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
               : |   ||    ||| |    :  | || :      : |::|||: | :|  :  :|:
Db         184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy         224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
                |  |       |   :: |    | |:     :|  :  :||  |  |     :
Db         235 -EIAQGIQK-------TARNDFLQSMGFKTRFDSLEYRQTKAAAYELPEKDLPEEDFERA 286

Qy         278 YICLYLYFK 286
                ||  ||
Db         287 RRFLYQCFK 295


RESULT 6
US-08-683-426-3
; Sequence 3, Application US/08683426
; Patent No. 5705367
;  GENERAL INFORMATION:
;    APPLICANT:  Gotschlich, Emil C.
;    TITLE OF INVENTION:  GLYCOSYLTRANSFERASES FOR BIOSYNTHESIS OF
;    TITLE OF INVENTION:  OLIGOSACCHARIDES, AND GENES ENCODING THEM
;    NUMBER OF SEQUENCES:  12
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Klauber & Jackson
;      STREET:  411 Hackensack Avenue
;      CITY:  Hackensack
;      STATE:  New Jersey
;      COUNTRY:  USA
;      ZIP:  07601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/683,426
;      FILING DATE:
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/312,387
;      FILING DATE:  September 26, 1994
;      CLASSIFICATION:  536
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Jackson Esq., David A.
;      REGISTRATION NUMBER:  26,742
;      REFERENCE/DOCKET NUMBER:  600-1-095B
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  201 487-5800
;      TELEFAX:  201 343-1684
;      TELEX:  133521
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  348 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-683-426-3

  Query Match             13.2%;  Score 210.5;  DB 1;  Length 348;
  Best Local Similarity   27.8%;  Pred. No. 2.3e-11;
  Matches   86;  Conservative   55;  Mismatches  123;  Indels   45;  Gaps   15;

Qy           4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
               |:::  ||    |   |: :::||  : : :|| |  : | |    ::   |:|||||
Db           6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63

Qy          64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
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                :| ||  |||  : :::|     |||| | |||||: |   :| :  ||::   :
Db         64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy        116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
              | |  | ::| || : :  :  ||:        ||       : : : |  ::: | |
Db        124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy        171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
              : |   ||    |||  |    :  | || :      : |::|||: | :|  :  :|:
Db        184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy        224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
                | |  |       |   :: |    | |:     :|  :  :||  |  |     :
Db        235 -EIAQGIQK-------TARNDFLQSMGFKTRFDSLEYRQTKAAAYELPEKDLPEEDFERA 286

Qy        278 YICLYLYFK 286
                ||  ||
Db        287 RRFLYQCFK 295
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RESULT 7
US-08-683-426-11
; Sequence 11, Application US/08683426
; Patent No. 5705367
; GENERAL INFORMATION:
; APPLICANT: Gotschlich, Emil C.
; TITLE OF INVENTION: GLYCOSYLTRANSFERASES FOR BIOSYNTHESIS OF
; TITLE OF INVENTION: OLIGOSACCHARIDES, AND GENES ENCODING THEM
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Klauber & Jackson
; STREET: 411 Hackensack Avenue
; CITY: Hackensack
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07601
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/683,426
; FILING DATE:
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/312,387
; FILING DATE: September 26, 1994
; CLASSIFICATION: 536
; ATTORNEY/AGENT INFORMATION:
; NAME: Jackson Esq., David A.
; REGISTRATION NUMBER: 26,742
; REFERENCE/DOCKET NUMBER: 600-1-095B
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201 487-5800
; TELEFAX: 201 343-1684
; TELEX: 133521
; INFORMATION FOR SEQ ID NO: 11:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 348 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-683-426-11

Query Match 13.2%; Score 210.5; DB 1; Length 348;
Best Local Similarity 27.8%; Pred. No. 2.3e-11;
Matches 86; Conservative 55; Mismatches 123; Indels 45; Gaps 15;

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Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |:::  ||    |   |: :::|||  : : :|| |  : | |     ::   |:|||||
Db          6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63
```

```
Qy         64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
                :| ||  |||  : :::|     |||| | |||||: |   :| :  ||::   :
Db         64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy        116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
              | |  | ::| || : :  :  ||:        ||       : : : |  ::: | |
Db        124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy        171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
              : |   ||    |||  |    :  | || :      : |::|||: | :|  :  :|:
Db        184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy        224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
                | |  |       |   :: |    | |:     :|  :  :||  |  |     :
Db        235 -EIAQGIQK-------TARNDFLQSMGFKTRFDSLEYRQTKAAAYELPEKDLPEEDFERA 286

Qy        278 YICLYLYFK 286
                ||  ||
Db        287 RRFLYQCFK 295
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RESULT 8
US-08-683-458-3
; Sequence 3, Application US/08683458
; Patent No. 5798233
; GENERAL INFORMATION:
; APPLICANT: Gotschlich, Emil C.
; TITLE OF INVENTION: GLYCOSYLTRANSFERASES FOR BIOSYNTHESIS OF
; TITLE OF INVENTION: OLIGOSACCHARIDES, AND GENES ENCODING THEM
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Klauber & Jackson
; STREET: 411 Hackensack Avenue
; CITY: Hackensack
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07601
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/683,458
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/312,387
; FILING DATE: September 26, 1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Jackson Esq., David A.
; REGISTRATION NUMBER: 26,742
; REFERENCE/DOCKET NUMBER: 600-1-095A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201 487-5800
; TELEFAX: 201 343-1684
; TELEX: 133521
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 348 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-683-458-3

Query Match 13.2%; Score 210.5; DB 1; Length 348;
Best Local Similarity 27.8%; Pred. No. 2.3e-11;
Matches 86; Conservative 55; Mismatches 123; Indels 45; Gaps 15;

```
Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |:::  ||    |   |: :::|||  : : :|| |  : | |     ::   |:|||||
Db          6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63
```

```
Qy          64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
               :| ||  |||  : :::|     ||||  | |||||: |    :| :  ||::   :
Db          64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy         116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
               | |  | ::| || : :  :  ||:       ||        : : :|  ::: | |
Db         124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy         171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
               : |   ||    ||| |    :  | || :      : |::|||: | :|  :  :|:
Db         184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy         224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
               | |  |        |   :: |    | |:     :|  :  :||  |  |     :
Db         235 -EIAQGIQK-------TARNDFLQSMGFKTRFDSLEYRQTKAAAYELPEKDLPEEDFERA 286

Qy         278 YICLYLYFK 286
                 ||  ||
Db         287 RRFLYQCFK 295
```

RESULT 9
US-08-683-458-11
; Sequence 11, Application US/08683458
; Patent No. 5798233
; GENERAL INFORMATION:
; APPLICANT: Gotschlich, Emil C.
; TITLE OF INVENTION: GLYCOSYLTRANSFERASES FOR BIOSYNTHESIS OF
; TITLE OF INVENTION: OLIGOSACCHARIDES, AND GENES ENCODING THEM
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Klauber & Jackson
; STREET: 411 Hackensack Avenue
; CITY: Hackensack
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07601
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/683,458
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/312,387
; FILING DATE: September 26, 1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Jackson Esq., David A.
; REGISTRATION NUMBER: 26,742
; REFERENCE/DOCKET NUMBER: 600-1-095A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201 487-5800
; TELEFAX: 201 343-1684
; TELEX: 133521
; INFORMATION FOR SEQ ID NO: 11:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 348 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-683-458-11

Query Match 13.2%; Score 210.5; DB 1; Length 348;
Best Local Similarity 27.8%; Pred. No. 2.3e-11;
Matches 86; Conservative 55; Mismatches 123; Indels 45; Gaps 15;

```
Qy           4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
               |:::  ||    |   |: :::|||  : : :|| |  : | |     ::   |:|||||
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```
Db           6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63

Qy          64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
               :| ||  |||  : :::|     ||||  | |||||: |    :| :  ||::   :
Db          64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy         116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
               | |  | ::| || : :  :  ||:       ||        : : :|  ::: | |
Db         124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy         171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
               : |   ||    ||| |    :  | || :      : |::|||: | :|  :  :|:
Db         184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy         224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
               | |  |        |   :: |    | |:     :|  :  :||  |  |     :
Db         235 -EIAQGIQK-------TARNDFLQSMGFKTRFDSLEYRQTKAAAYELPEKDLPEEDFERA 286

Qy         278 YICLYLYFK 286
                 ||  ||
Db         287 RRFLYQCFK 295
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RESULT 10
US-08-878-360-3
; Sequence 3, Application US/08878360
; Patent No. 5945322
; GENERAL INFORMATION:
; APPLICANT: Gotschlich, Emil C.
; TITLE OF INVENTION: GLYCOSYLTRANSFERASES FOR BIOSYNTHESIS OF
; TITLE OF INVENTION: OLIGOSACCHARIDES, AND GENES ENCODING THEM
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Klauber & Jackson
; STREET: 411 Hackensack Avenue
; CITY: Hackensack
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07601
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/878,360
; FILING DATE: 18-JUN-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/683,426
; FILING DATE:
; APPLICATION NUMBER: 08/312,387
; FILING DATE: September 26, 1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Jackson Esq., David A.
; REGISTRATION NUMBER: 26,742
; REFERENCE/DOCKET NUMBER: 600-1-095B
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201 487-5800
; TELEFAX: 201 343-1684
; TELEX: 133521
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 348 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-878-360-3

Query Match 13.2%; Score 210.5; DB 2; Length 348;
Best Local Similarity 27.8%; Pred. No. 2.3e-11;
Matches 86; Conservative 55; Mismatches 123; Indels 45; Gaps 15;

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Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |:::  ||    |   |: :::|||  : : :|| |  : | |      ::   |:|||||
Db          6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63

Qy         64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
                :| ||  |||  : :::|     |||| | |||||: |   :| :  ||::   :
Db         64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy        116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
              | |  | ::| || : :  :  ||:       ||       : : : |  ::: | |
Db        124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy        171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
              : |   ||   |||  |    :  | || :      : |::|||: | :|  :  :|:
Db        184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy        224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
              | |  |       |  :: |    | |:    :|  :  :||  |  |     :
Db        235 -EIAQGIQK-------TARNDFLQSMGFKTRFDSLEYRQTKAAAYELPEKDLPEEDFERA 286

Qy        278 YICLYLYFK 286
                ||  ||
Db        287 RRFLYQCFK 295
```

RESULT 11
US-08-878-360-11
; Sequence 11, Application US/08878360
; Patent No. 5945322
; GENERAL INFORMATION:
; APPLICANT: Gotschlich, Emil C.
; TITLE OF INVENTION: GLYCOSYLTRANSFERASES FOR BIOSYNTHESIS OF
; TITLE OF INVENTION: OLIGOSACCHARIDES, AND GENES ENCODING THEM
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Klauber & Jackson
; STREET: 411 Hackensack Avenue
; CITY: Hackensack
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07601
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/878,360
; FILING DATE: 18-JUN-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/683,426
; FILING DATE:
; APPLICATION NUMBER: 08/312,387
; FILING DATE: September 26, 1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Jackson Esq., David A.
; REGISTRATION NUMBER: 26,742
; REFERENCE/DOCKET NUMBER: 600-1-095B
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201 487-5800
; TELEFAX: 201 343-1684
; TELEX: 133521
; INFORMATION FOR SEQ ID NO: 11:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 348 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-878-360-11

Query Match 13.2%; Score 210.5; DB 2; Length 348;
Best Local Similarity 27.8%; Pred. No. 2.3e-11;
Matches 86; Conservative 55; Mismatches 123; Indels 45; Gaps 15;

```
Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |:::  ||    |   |: :::|||  : : :|| |  : | |      ::   |:|||||
Db          6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63

Qy         64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
                :| ||  |||  : :::|     |||| | |||||: |   :| :  ||::   :
Db         64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy        116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
              | |  | ::| || : :  :  ||:       ||       : : : |  ::: | |
Db        124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy        171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
              : |   ||    |||  |    :  | || :      : |::|||: | :|  :  :|:
Db        184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy        224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
              | |  |       |  :: |    | |:    :|  :  :||  |  |     :
Db        235 -EIAQGIQK-------TARNDFLQSMGFKTRFDSLEYRQTKAAAYELPEKDLPEEDFERA 286

Qy        278 YICLYLYFK 286
                ||  ||
Db        287 RRFLYQCFK 295
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RESULT 12
US-08-478-140B-3
; Sequence 3, Application US/08478140B
; Patent No. 6127153
; GENERAL INFORMATION:
; APPLICANT: JOHNSON, KARL F.
; APPLICANT: ROTH, STEPHEN
; APPLICANT: BUCZALA, STEPHANIE L.
; TITLE OF INVENTION: METHOD OF TRANSFERRING AT LEAST TWO
; TITLE OF INVENTION: SACCHARIDE UNITS WITH A POLYGLYCOSYLTRANSFERASE, A
; TITLE OF INVENTION: POLYGLYCOSYLTRANSFERASE AND GENE ENCODING A
; TITLE OF INVENTION: POLYGLYCOSYLTRANSFERASE
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Pennie & Edmonds
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: USA
; ZIP: 10036-2711
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/478,140B
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Laura A. Coruzzi
; REGISTRATION NUMBER: 30,742
; REFERENCE/DOCKET NUMBER: 7188-017
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-9741/8864
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 348 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-478-140B-3

```
  Query Match             13.2%;  Score 210.5;  DB 3;  Length 348;
  Best Local Similarity   27.8%;  Pred. No. 2.3e-11;
  Matches   86;  Conservative   55;  Mismatches  123;  Indels   45;  Gaps   15;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |:::  ||     |   |: :::|||  : : :|| |  : | |      ::   |:|||||
Db          6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63

Qy         64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
                :| ||  |||  : :::|      |||| | |||||: |   :| :  ||::   :
Db         64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy        116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
               | |  | ::| || : :  :  ||:       ||       : : :  | ::: | |
Db        124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy        171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
              : |   ||    ||| |   :  | || :     : |::|||: | :|  :  :|:
Db        184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy        224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
                | |   |       |   :: |    | |:     :|  :  :||  |  |     :
Db        235 -EIAQGIQK-------TARNDFLQSMGFKTRFDSLEYRQTKAAAYELPEKDLPEEDFERA 286

Qy        278 YICLYLYFK 286
                ||  ||
Db        287 RRFLYQCFK 295


RESULT 13
US-08-478-140B-8
; Sequence 8, Application US/08478140B
; Patent No. 6127153
;  GENERAL INFORMATION:
;    APPLICANT:  JOHNSON, KARL F.
;    APPLICANT:  ROTH, STEPHEN
;    APPLICANT:  BUCZALA, STEPHANIE L.
;    TITLE OF INVENTION:  METHOD OF TRANSFERRING AT LEAST TWO
;    TITLE OF INVENTION:  SACCHARIDE UNITS WITH A POLYGLYCOSYLTRANSFERASE, A
;    TITLE OF INVENTION:  POLYGLYCOSYLTRANSFERASE AND GENE ENCODING A
;    TITLE OF INVENTION:  POLYGLYCOSYLTRANSFERASE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pennie & Edmonds
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/478,140B
;      FILING DATE:  07-JUN-1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Laura A. Coruzzi
;      REGISTRATION NUMBER:  30,742
;      REFERENCE/DOCKET NUMBER:  7188-017
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-9741/8864
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  348 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    ANTI-SENSE:  NO
US-08-478-140B-8

  Query Match             13.2%;  Score 210.5;  DB 3;  Length 348;
  Best Local Similarity   27.8%;  Pred. No. 2.3e-11;
  Matches   86;  Conservative   55;  Mismatches  123;  Indels   45;  Gaps   15;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
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Db         64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy        116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
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Db        124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy        171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
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Qy        224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
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Qy        278 YICLYLYFK 286
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Db        287 RRFLYQCFK 295


RESULT 14
US-09-333-412-3
; Sequence 3, Application US/09333412
; Patent No. 6342382
;  GENERAL INFORMATION:
;       APPLICANT: Gotschlich, Emil C.
;       TITLE OF INVENTION: GLYCOSYLTRANSFERASES FOR BIOSYNTHESIS OF
;                           OLIGOSACCHARIDES, AND GENES ENCODING THEM
;       NUMBER OF SEQUENCES: 12
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Klauber & Jackson
;            STREET: 411 Hackensack Avenue
;            CITY: Hackensack
;            STATE: New Jersey
;            COUNTRY: USA
;            ZIP: 07601
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.25
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/333,412
;            FILING DATE: 15-Jun-1999
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: 08/312,387
;            FILING DATE: July 7, 1994
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Jackson Esq., David A.
;            REGISTRATION NUMBER: 26,742
;            REFERENCE/DOCKET NUMBER: 600-1-095
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: 201 487-5800
;            TELEFAX: 201 343-1684
;            TELEX: 133521
;  INFORMATION FOR SEQ ID NO: 3:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 348 amino acids
;            TYPE: amino acid
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;            TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-333-412-3

  Query Match             13.2%;  Score 210.5;  DB 4;  Length 348;
  Best Local Similarity   27.8%;  Pred. No. 2.3e-11;
  Matches   86;  Conservative   55;  Mismatches  123;  Indels   45;  Gaps   15;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |:::  ||    |   |: :::|||  : : :|| |  : | |     ::   |:|||||
Db          6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63

Qy         64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
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Db         64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy        116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
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Db        124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy        171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
              : |   ||    ||| |    :  | || :      : |::|||: | :|  :  :|:
Db        184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy        224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
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Db        235 -EIAQGIQK-------TARNDFLQSMGFKTRFDSLEYRQTKAAAYELPEKDLPEEDFERA 286

Qy        278 YICLYLYFK 286
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Db        287 RRFLYQCFK 295


RESULT 15
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; Sequence 11, Application US/09333412
; Patent No. 6342382
;  GENERAL INFORMATION:
;       APPLICANT: Gotschlich, Emil C.
;       TITLE OF INVENTION: GLYCOSYLTRANSFERASES FOR BIOSYNTHESIS OF
;                           OLIGOSACCHARIDES, AND GENES ENCODING THEM
;       NUMBER OF SEQUENCES: 12
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Klauber & Jackson
;            STREET: 411 Hackensack Avenue
;            CITY: Hackensack
;            STATE: New Jersey
;            COUNTRY: USA
;            ZIP: 07601
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.25
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/333,412
;            FILING DATE: 15-Jun-1999
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: 08/312,387
;            FILING DATE: July 7, 1994
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Jackson Esq., David A.
;            REGISTRATION NUMBER: 26,742
;            REFERENCE/DOCKET NUMBER: 600-1-095
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: 201 487-5800
;            TELEFAX: 201 343-1684
;            TELEX: 133521
;   INFORMATION FOR SEQ ID NO: 11:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 348 amino acids
;            TYPE: amino acid
;            TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 11:
US-09-333-412-11

  Query Match             13.2%;  Score 210.5;  DB 4;  Length 348;
  Best Local Similarity   27.8%;  Pred. No. 2.3e-11;
  Matches   86;  Conservative   55;  Mismatches  123;  Indels   45;  Gaps   15;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |:::  ||    |   |: :::|||  : : :|| |  : | |     ::   |:|||||
Db          6 SVLICAYNVE-KYFAQSLAAVVNQTWRNLDILIVDDGSTDGTL-AIAKDFQKRDSRIKIL 63

Qy         64 LNEENIGLASSLNKAV-KISK-----GEYIFRMDADDISYPSRFDKQIRFMEENS--LDF 115
               :| ||  |||  : :::|     |||| | |||||: |   :| :  ||::   :
Db         64 AQAQNSGLIPSLNIGLDELAKSGGGGGEYIARTDADDIASPGWIEKIVGEMEKDRSIIAM 123

Qy        116 SATLIELIDQK-GNLVYKQRESNKIYLT----NDIRKMLLNRSILAHPTWCVKKKVFDKL 170
              | |  | ::| || : :  :  ||:       ||        : : :  ::: | |
Db        124 GAWLEVLSEEKDGNRLARHHKHGKIWKKPTRHEDIAAFFPFGNPIHNNTMIMRRSVIDGG 183

Qy        171 MGY---RDLVPVEDYDF----AIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIY 223
              : |   ||    ||| |    :  | || :      : |::|||: | :|  :  :|:
Db        184 LRYDTERDW--AEDYQFWYDVSKLGRLAYYP-----EALVKYRLHANQVSSKHSVRQH-- 234

Qy        224 SAILQDFYKEKSYIDITKITNYFQEYVIKKRYT----QQELSKYFEL--KSTPSITIRKL 277
              | |  |        |   :: |    | |:     :|  :  :||  |  |     :
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Qy        278 YICLYLYFK 286
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Db        287 RRFLYQCFK 295


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GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: March 28, 2004, 03:30:59 ; Search time 101 Seconds
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Title: US-09-900-038A-2
Perfect score: 939
Sequence: 1 atgaattatagtatcattat.....gaggagagaaacaaagtgac 939

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 682709 seqs, 277475446 residues

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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	2	73.6	7.8	1830121	4	US-09-557-884-1	Sequence 1, Appli
	3	73.6	7.8	1830121	4	US-09-643-990A-1	Sequence 1, Appli
c	4	69.8	7.4	14187	4	US-09-453-702B-121	Sequence 121, App
	5	64.8	6.9	906	4	US-09-495-406-14	Sequence 14, Appl
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	7	63.8	6.8	1170	4	US-09-495-406-11	Sequence 11, Appl
	8	63.8	6.8	11474	4	US-09-495-406-1	Sequence 1, Appli
	9	63.4	6.8	3171	4	US-09-134-000C-1681	Sequence 1681, Ap
	10	60.4	6.4	912	4	US-09-495-406-16	Sequence 16, Appl
	11	58.8	6.3	1602	4	US-09-134-000C-1682	Sequence 1682, Ap
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c	13	56.6	6.0	19124	2	US-08-487-826B-13	Sequence 13, Appl
	14	55.6	5.9	19124	2	US-08-487-826B-13	Sequence 13, Appl
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	16	50.8	5.4	1251	4	US-09-489-039A-1024	Sequence 1024, Ap
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c	18	50	5.3	860	3	US-08-998-416-287	Sequence 287, App
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c	34	46	4.9	3701	3	US-08-845-258-10	Sequence 10, Appl
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c	36	46	4.9	3701	4	US-08-723-142A-10	Sequence 10, Appl
c	37	46	4.9	3701	4	US-09-528-784A-10	Sequence 10, Appl
c	38	46	4.9	3701	4	US-09-569-098A-10	Sequence 10, Appl
c	39	45.6	4.9	636	3	US-08-998-416-1137	Sequence 1137, Ap
c	40	45.6	4.9	665	2	US-08-883-795A-36	Sequence 36, Appl
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	43	45.6	4.9	8920	2	US-08-446-855A-1	Sequence 1, Appli
	44	45.6	4.9	8920	3	US-09-150-741-1	Sequence 1, Appli
	45	45.6	4.9	15598	4	US-08-956-171E-82	Sequence 82, Appl

ALIGNMENTS

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RESULT 1
US-08-916-421B-1/c
; Sequence 1, Application US/08916421B
; Patent No. 6503729
; GENERAL INFORMATION:
;  APPLICANT: Bult et al.
;  TITLE OF INVENTION: Complete Genome Sequence of the Methanogenic Archaeon, Methanococ
; Patent No. 6503729
;  TITLE OF INVENTION:  jannaschii
;  FILE REFERENCE: PB275
;  CURRENT APPLICATION NUMBER: US/08/916,421B
;  CURRENT FILING DATE:  1997-08-22
;  PRIOR APPLICATION NUMBER: US 60/024,428
;  PRIOR FILING DATE: 1996-08-22
;  NUMBER OF SEQ ID NOS: 3
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
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;   ORGANISM: Methanococcus jannaschii
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US-08-916-421B-1

Query Match 17.9%; Score 168.4; DB 4; Length 1664976;
Best Local Similarity 55.2%; Pred. No. 1.1e-27;
Matches 363; Conservative 5; Mismatches 281; Indels 9; Gaps 2;

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Db      475573 ATATTGCCATATTAGACGCTGATGATATTGCATTACCTAAAAGATTAGAAAAACAATTTA 475514

Qy         317 GTTTTATGGAGGAAAATTCA---TTGGATTTCTCAGCAACTCTAATAGAATTGATAGACC 373

Db      475513 AATATATGGAAAATAATAGAGACATTGATTTATTGTTTAGCTGGGTTTATTTTATTGATG 475454

Qy         374 AAAAAGGAAATTTAGTATATAAACAACGAGAAAGTAATAAAATATACTTAACTAATGATA 433

Db      475453 AAAATGGAAATAT------TTTAAAAGAGTTTAAGCCAGAAAAATATAAATTTAAAGAAA 475400

Qy         434 TACGGAAGATGTTATTGAATAGATCTATACTTGCCCACCCAACGTGGTGCGTAAAAAAGA 493

Db      475399 TTAAAAAATATTTTTTCAAAGAACATTTAACTGTTCATCCATCTATGATGGTAAAGAGTA 475340

Qy         494 AAGTTTTCGATAAGTTAATGGGATATAGAGATTTAGTACCTGTTGAAGATTATGATTTTG 553

Db      475339 AAATCTTAAAGAAATTAAAATACGATGAGAAATTAATTAGGTCTCAAGACTACGATTTTT 475280

Qy         554 CAATAAGAGGAGCTCTGGCTGATTTCAAAATCGGCTTACTCAATAAAGTACTTTTACAGT 613

Db      475279 GGATTAGATGTATAGCCAATGATTACAAATTTGACATAATTGAGGAATTTTTATTAAAAT 475220

Qy         614 ATAGATTAAACGAGAATGGAATATCACAAACCAATAAGTTTAAGCAATATATTTACTC 671

Db      475219 ATAGAATTCCAAATAGAGACAATTATTTAAGCAGAATCAAAAAACAAAAATTATATTC 475162
```

RESULT 2
US-09-557-884-1
; Sequence 1, Application US/09557884
; Patent No. 6506581
; GENERAL INFORMATION:
; APPLICANT: Fleischmann et al.
; TITLE OF INVENTION: The Nucleotide sequence of
; the Haemophilus influenzae Rd Genome, Fragments
; Thereof, and Uses Thereof
; NUMBER OF SEQUENCES: 1
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville
; STATE: MD
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3 1/2 inch diskette
; COMPUTER: Dell Pentium
; OPERATING SYSTEM: MS DOS v6.22
; SOFTWARE: ASCII Text
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/557,884
; FILING DATE: 25-Apr-2000
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/476,102
; FILING DATE: JUN-5-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Michelle S. Marks
; REGISTRATION NUMBER: 41,971
; REFERENCE/DOCKET NUMBER: PB186P3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 301-309-8504
; TELEFAX: 301-309-8439
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1830121 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
; SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-557-884-1

Query Match 7.8%; Score 73.6; DB 4; Length 1830121;
Best Local Similarity 54.9%; Pred. No. 5.6e-07;
Matches 167; Conservative 0; Mismatches 134; Indels 3; Gaps 1;

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Qy          30 TAATGAGCCTTTAAATTATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTAC 89

Db     1646128 TTATAACGCTGAGCAATATATAGATGAAAGCATTTCATCCATTATTAATCAGACTTATGA 1646187

Qy          90 TGATTTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTT 149

Db     1646188 AAATCTAGAAATTATAGTTATCAATGATGGTTCAACAGATTTGACTTTGTCTCA---TTT 1646244

Qy         150 AACAGAATATTCAGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGG 209

Db     1646245 AGAAGAAATATCTAAATTAGATAAAAGGATAAAAATTATCAGTAATAAATATAATTTAGG 1646304

Qy         210 TTTAGCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAAT 269

Db     1646305 GTTCATAAATTCTTTGAATATAGGCCTTGGTTGTTTTTCAGGTAAATATTTTGCAAGAAT 1646364

Qy         270 GGATGCTGATGATATTTCATATCCAAGTAGATTTGATAAGCAAATTCGTTTTATGGAGGA 329

Db     1646365 GGATGCTGATGATATAGCTAAACCATCGTGGATTGAGAAAATAGTTACCTATCTGGAGAA 1646424

Qy         330 AAAT 333

Db     1646425 AAAT 1646428
```

RESULT 3
US-09-643-990A-1
; Sequence 1, Application US/09643990A
; Patent No. 6528289
; GENERAL INFORMATION:
; APPLICANT: Robert D. Fleischmann
; Mark D. Adams
; Owen White
; Hamilton O. Smith
; J. Craig Venter
; TITLE OF INVENTION: The Nucleotide sequence of
; the Haemophilus influenzae Rd Genome, Fragments
; Thereof, and Uses Thereof
; NUMBER OF SEQUENCES: 1
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville,
; STATE: MD
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3 1/2 inch diskette
; COMPUTER: Dell Pentium
; OPERATING SYSTEM: MS DOS v6.22
; SOFTWARE: ASCII Text
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/643,990A
; FILING DATE: 23-Aug-2000
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/487,429
; FILING DATE: 1995-06-07
; APPLICATION NUMBER: 08/426,787
; FILING DATE: 1995-04-21
; ATTORNEY/AGENT INFORMATION:
; NAME: Kenley K. Hoover
; REGISTRATION NUMBER: 40,302
; REFERENCE/DOCKET NUMBER: PB186P1C1
; TELECOMMUNICATION INFORMATION:

```
;            TELEPHONE: 301-610-5790
;            TELEFAX: 310-309-8439
;   INFORMATION FOR SEQ ID NO: 1:
;        SEQUENCE CHARACTERISTICS:
;            LENGTH: 1830121 base pairs
;            TYPE: nucleic acid
;            STRANDEDNESS: double
;            TOPOLOGY: linear
;        SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-643-990A-1

  Query Match             7.8%;  Score 73.6;  DB 4;  Length 1830121;
  Best Local Similarity   54.9%;  Pred. No. 5.6e-07;
  Matches  167;  Conservative    0;  Mismatches  134;  Indels    3;  Gaps    1;

Qy         30 TAATGAGCCTTTAAATTATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTAC 89
Db    1646128 TTATAACGCTGAGCAATATATAGATGAAAGCATTTCATCCATTATTAATCAGACTTATGA 1646187

Qy         90 TGATTTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTT 149
Db    1646188 AAATCTAGAAATTATAGTTATCAATGATGGTTCAACAGATTTGACTTTGTCTCA---TTT 1646244

Qy        150 AACAGAATATTCAGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGG 209
Db    1646245 AGAAGAAATATCTAAATTAGATAAAAGGATAAAAATTATCAGTAATAAATATAATTTAGG 1646304

Qy        210 TTTAGCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAAT 269
Db    1646305 GTTCATAAATTCTTTGAATATAGGCCTTGGTTGTTTTTCAGGTAAATATTTTGCAAGAAT 1646364

Qy        270 GGATGCTGATGATATTTCATATCCAAGTAGATTTGATAAGCAAATTCGTTTTATGGAGGA 329
Db    1646365 GGATGCTGATGATATAGCTAAACCATCGTGGATTGAGAAAATAGTTACCTATCTGGAGAA 1646424

Qy        330 AAAT 333
Db    1646425 AAAT 1646428


RESULT 4
US-09-453-702B-121/c
; Sequence 121, Application US/09453702B
; Patent No. 6365723
;   GENERAL INFORMATION:
;        APPLICANT: Blattner, Frederick R.
;                   Burland,     Valerie
;                   Perna,  Nicole T.
;                   Plunkett, Guy
;                   Welch,  Rod
;        TITLE OF INVENTION: No. 6365723el Sequences of E. coli O157
;        NUMBER OF SEQUENCES: 265
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Quarles & Brady
;             STREET: 1 South Pinckney Street
;             CITY: Madison
;             STATE: WI
;             COUNTRY: US
;             ZIP: 53701-2113
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Diskette, 3.50 inch. 1.44Mb storage
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: Word Perfect 8.0
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/453,702B
;             FILING DATE: 03-Dec-1999
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 60/110,955
;             FILING DATE: 04-DEC-1998
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Seay, Nicholas J.
;             REGISTRATION NUMBER: 27386
;             REFERENCE/DOCKET NUMBER: 960296.95017
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (608) 251-5000
;             TELEFAX: (608) 251-9166
;   INFORMATION FOR SEQ ID NO: 121:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 14187
;             TYPE: nucleic acid
;             STRANDEDNESS: double
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA  (genomic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 121:
US-09-453-702B-121

  Query Match             7.4%;  Score 69.8;  DB 4;  Length 14187;
  Best Local Similarity   52.7%;  Pred. No. 1.6e-06;
  Matches  175;  Conservative    0;  Mismatches  154;  Indels    3;  Gaps    1;

Qy         58 TCAGTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGAT 117
Db      13859 TCAGTAGAATCAATTATACATCAATCTTATCAAGATTTTG---TTTTGTATATCATTGAC 13803

Qy        118 AATCCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGA 177
Db      13802 GATTGTAGCACCGATGATACATTTTCATTAATCAACAGTCGATACAAAAACAATCAGAAA 13743

Qy        178 ATAAAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTG 237
Db      13742 ATAAGAATATTGCGTAACAAGACAAATTTAGGTGTTGCAGAAAGTCGAAATTATGGAATA 13683

Qy        238 AAAATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGT 297
Db      13682 GAAATGGCCACGGGGAAATATATTTCTTTTTGTGATGCGGATGATTTGTGGCACGAGAAA 13623

Qy        298 AGATTTGATAAGCAAATTCGTTTTATGGAGGAAAATTCATTGGATTTCTCAGCAACTCTA 357
Db      13622 AAATTAGAGCGTCAAATCGAAGTGTTAAATAATGAATGTGTAGATGTGGTATGTTCTAAT 13563

Qy        358 ATAGAATTGATAGACCAAAAAGGAAATTTAGT 389
Db      13562 TATTATGTTATAGATAACAAAAGAAATATTGT 13531


RESULT 5
US-09-495-406-14
; Sequence 14, Application US/09495406
; Patent No. 6503744
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000110US
;  CURRENT APPLICATION NUMBER: US/09/495,406
;  CURRENT FILING DATE:  2000-01-31
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  NUMBER OF SEQ ID NOS: 35
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 14
;   LENGTH: 906
;   TYPE: DNA
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)..(906)
;   OTHER INFORMATION: beta-1,3-galactosyltransferase from C. jejuni strain
;   OTHER INFORMATION: OH4384 (ORF 6a of LOS biosynthesis locus)
US-09-495-406-14

  Query Match             6.9%;  Score 64.8;  DB 4;  Length 906;
```

```
  Best Local Similarity   51.8%;  Pred. No. 1.2e-05;
  Matches  172;  Conservative    0;  Mismatches  157;  Indels    3;  Gaps    1;

Qy          1 ATGAATTATAGTATCATTATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCA 60
              |||  | | | |   || || |   | | || |     | | ||| |   |     ||
Db          1 ATGTTTAAAATTTCAATCATCTTACCAACTTATAATGTGGAACAATATATAGCAAGGGCA 60

Qy         61 GTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAAT 120
              |||||        | ||||| ||  |||  ||| | ||    ||||||||  ||||| ||
Db         61 ATAGAAAGCTGTATCAATCAGACTTTTAAAGATATAGA---AATAATTGTAGTTGATGAT 117

Qy        121 CCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATA 180
              |||||  | |  |||||| ||||  | ||| |   |  |        | |||  ||||||
Db        118 TGTGGAAATGATAATAGTATAAATATAGCCAAAGAATACTCTAAAAAAGACAAAAGAATA 177

Qy        181 AAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAA 240
              |||||  | |  |||||| ||||  | ||| |   |  |        | |||  ||||||
Db        178 AAAATAATCCACAATGAAAAAAACTTAGGTCTTTTAAGAGCAAGATATGAAGGTGTGAAA 237

Qy        241 ATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGA 300
              |  | ||       |||||  |     | ||| ||||||||  ||   | | || |
Db        238 GTAGCAAACTCTCCTTATATAATGTTTTTAGATCCTGATGATTATTTGGAACTAAATGCT 297

Qy        301 TTTGATAAGCAAATTCGTTTTATGGAGGAAAA 332
              | |||  ||   ||    || | || ||| |
Db        298 TGTGAAGAGTGTATAAAAATTTTAGATGAACA 329


RESULT 6
US-09-495-406-1/c
; Sequence 1, Application US/09495406
; Patent No. 6503744
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000110US
;  CURRENT APPLICATION NUMBER: US/09/495,406
;  CURRENT FILING DATE:  2000-01-31
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  NUMBER OF SEQ ID NOS: 35
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
;   LENGTH: 11474
;   TYPE: DNA
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: 11.5 kb PCR product from C. jejuni OH4384
;   OTHER INFORMATION: including LOS biosynthesis locus
US-09-495-406-1

  Query Match             6.9%;  Score 64.8;  DB 4;  Length 11474;
  Best Local Similarity   51.8%;  Pred. No. 1.9e-05;
  Matches  172;  Conservative    0;  Mismatches  157;  Indels    3;  Gaps    1;

Qy          1 ATGAATTATAGTATCATTATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCA 60
              |||  | | | |   || || |   | | || |     | | ||| |   |     ||
Db       5959 ATGTTTAAAATTTCAATCATCTTACCAACTTATAATGTGGAACAATATATAGCAAGGGCA 5900

Qy         61 GTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAAT 120
              |||||        | ||||| ||  |||  ||| | ||    ||||||||  ||||| ||
Db       5899 ATAGAAAGCTGTATCAATCAGACTTTTAAAGATATAGA---AATAATTGTAGTTGATGAT 5843

Qy        121 CCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATA 180
              |||||  | |  |||||| ||||  | ||| |   |  |        | |||  ||||||
Db       5842 TGTGGAAATGATAATAGTATAAATATAGCCAAAGAATACTCTAAAAAAGACAAAAGAATA 5783

Qy        181 AAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAA 240
              |||||  | |  |||||| ||||  | ||| |   |  |        | |||  ||||||
Db       5782 AAAATAATCCACAATGAAAAAAACTTAGGTCTTTTAAGAGCAAGATATGAAGGTGTGAAA 5723

Qy        241 ATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGA 300
              |  | ||       |||||  |     | ||| ||||||||  ||   | | || |
Db       5722 GTAGCAAACTCTCCTTATATAATGTTTTTAGATCCTGATGATTATTTGGAACTAAATGCT 5663

Qy        301 TTTGATAAGCAAATTCGTTTTATGGAGGAAAA 332
              | |||  ||   ||    || | || ||| |
Db       5662 TGTGAAGAGTGTATAAAAATTTTAGATGAACA 5631


RESULT 7
US-09-495-406-11
; Sequence 11, Application US/09495406
; Patent No. 6503744
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000110US
;  CURRENT APPLICATION NUMBER: US/09/495,406
;  CURRENT FILING DATE:  2000-01-31
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  NUMBER OF SEQ ID NOS: 35
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
;   LENGTH: 1170
;   TYPE: DNA
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: glycosyltransferase from C. jejuni strain OH4384
;   OTHER INFORMATION: (ORF 4a of LOS biosynthesis locus)
US-09-495-406-11

  Query Match             6.8%;  Score 63.8;  DB 4;  Length 1170;
  Best Local Similarity   56.8%;  Pred. No. 2.1e-05;
  Matches  138;  Conservative    0;  Mismatches  102;  Indels    3;  Gaps    1;

Qy         42 AAATTATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTT 101
              ||| ||| | ||||| |   ||||     | | ||||||||   |||| | || ||  |
Db         42 AAAATATTTAAGAGAATGTTTAGATAGCGTTATCAATCAAACTTATACTAACTTAGAAAT 101

Qy        102 CATAATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTC 161
              |||| |||||| ||||  |   |  |  | | |   |  |  || |||||||  |
Db        102 CATACTTGTCAATGATGGTAGCACAGATGAACACTCACTCAATATTGCAAAAGAATATAC 161

Qy        162 AGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAG 221
                |   |||||| |||||||    | |   || || | |||||   ||||||   |||
Db        162 CTTAAAAGATAAAAGAATAACTCTTT---TTGATAAGAAAAATGGGGGTTTAAGTTCAGC 218

Qy        222 TTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGA 281
              |   || | ||   |  || | || || ||||||| || | | ||   | || | |
Db        219 TAGAAATATAGGTATAGAATACTTTAGCGGGGAATATAAATTAAAAAACAAAACTCAACA 278

Qy        282 TAT 284
              |||
Db        279 TAT 281


RESULT 8
US-09-495-406-1
; Sequence 1, Application US/09495406
; Patent No. 6503744
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000110US
;  CURRENT APPLICATION NUMBER: US/09/495,406
```

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;  CURRENT FILING DATE:  2000-01-31
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  NUMBER OF SEQ ID NOS: 35
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
;   LENGTH: 11474
;   TYPE: DNA
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: 11.5 kb PCR product from C. jejuni OH4384
;   OTHER INFORMATION: including LOS biosynthesis locus
US-09-495-406-1

  Query Match             6.8%;  Score 63.8;  DB 4;  Length 11474;
  Best Local Similarity   56.8%;  Pred. No. 3.1e-05;
  Matches  138;  Conservative    0;  Mismatches  102;  Indels    3;  Gaps    1;

Qy         42 AAATTATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTT 101
              ||| ||| | ||||| |  ||||     | | ||||||||   |||| | || ||  |
Db       2827 AAAATATTTAAGAGAATGTTTAGATAGCGTTATCAATCAAACTTATACTAACTTAGAAAT 2886

Qy        102 CATAATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTC 161
              |||| |||||| |||| |     |     | | |   |  |   || |||||||| |
Db       2887 CATACTTGTCAATGATGGTAGCACAGATGAACACTCACTCAATATTGCAAAAGAATATAC 2946

Qy        162 AGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAG 221
                |  |||||| ||||||| | |   || || | |||||  ||||||   |||
Db       2947 CTTAAAAGATAAAAGAATAACTCTTT---TTGATAAGAAAAATGGGGGTTTAAGTTCAGC 3003

Qy        222 TTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGA 281
              |  || | ||  | || | ||  || |||||| || | ||   |  || |  |
Db       3004 TAGAAATATAGGTATAGAATACTTTAGCGGGGAATATAAATTAAAAAACAAAACTCAACA 3063

Qy        282 TAT 284
              |||
Db       3064 TAT 3066


RESULT 9
US-09-134-000C-1681
; Sequence 1681, Application US/09134000C
; Patent No. 6617156
; GENERAL INFORMATION:
;  APPLICANT: Lynn Doucette-Stamm et al
;  TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
;  TITLE OF INVENTION:  ENTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
;  FILE REFERENCE: 032796-032
;  CURRENT APPLICATION NUMBER: US/09/134,000C
;  CURRENT FILING DATE:  1998-08-13
;  PRIOR APPLICATION NUMBER: US 60/055,778
;  PRIOR FILING DATE: 1997-08-15
;  NUMBER OF SEQ ID NOS: 6812
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1681
;   LENGTH: 3171
;   TYPE: DNA
;   ORGANISM: Enterococcus faecalis
US-09-134-000C-1681

  Query Match             6.8%;  Score 63.4;  DB 4;  Length 3171;
  Best Local Similarity   50.8%;  Pred. No. 3.1e-05;
  Matches  151;  Conservative    0;  Mismatches  146;  Indels    0;  Gaps    0;

Qy         12 TATCATTATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCAGTAGAATCTAT 71
              | ||  | || | || |||||||      ||| |  |  ||  |  ||    ||| |
Db       1698 TGTCGCTGTGCCTGTTTATAATGTCGAAGAAAAATGGCTTGCAGCGTGCGTCTCTTCTTT 1757

Qy         72 ATTAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAGG 131
              |  ||||||      |  ||| |||||     | |   ||||    |    || |
Db       1758 ACAAAATCAGTACTATGAAAATTGGGAGTTATGTTTAGCAGATGATGCATCGCCAAGCGA 1817

Qy        132 TGATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATAAAAATCTTGCT 191
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              || | |||| | |  ||  | |||||  ||  |||||  |  |||| ||| |  |
Db       1818 ACATATTAAGCCAATGCTAGAAAAATATAAAGAACTAGATCAACGAATCAAAGTTATTTA 1877

Qy        192 TAATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGGG 251
              |  |||||||      | |  ||  |     |||  |||  ||   ||| |||  ||
Db       1878 TCGCGAAGAAAACGGACATATTTCAGAAGCAACTAACTCAGCTTTGTCGATTGCTACTGG 1937

Qy        252 AGAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGATTTGATAA 308
              || | |||| |   ||||||  ||||||  | |  |||    ||| || |
Db       1938 CGATTTTATTGGTTTCATGGATAACGATGATGAATTAGCGCCACAAGCATTATATGA 1994


RESULT 10
US-09-495-406-16
; Sequence 16, Application US/09495406
; Patent No. 6503744
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000110US
;  CURRENT APPLICATION NUMBER: US/09/495,406
;  CURRENT FILING DATE:  2000-01-31
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  NUMBER OF SEQ ID NOS: 35
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 16
;   LENGTH: 912
;   TYPE: DNA
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)..(912)
;   OTHER INFORMATION: Campylobacter glycosyltransferase B (cgtB) beta-1,3
;   OTHER INFORMATION: galactosyltransferase from C. jejuni serotype O:2
;   OTHER INFORMATION: (strain NCTC 11168)
US-09-495-406-16

  Query Match             6.4%;  Score 60.4;  DB 4;  Length 912;
  Best Local Similarity   51.2%;  Pred. No. 0.00011;
  Matches  167;  Conservative    0;  Mismatches  156;  Indels    3;  Gaps    1;

Qy          1 ATGAATTATAGTATCATTATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCA 60
              |||| | | | | ||| ||      | | || |     ||| ||| | |      ||
Db          1 ATGAGTCAAATTTCCATCATACTACCAACTTATAATGTGGAAAAATATATTGCTAGAGCA 60

Qy         61 GTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAAT 120
              |||||  |    | ||| |||||  |||  ||| | ||    || |||||  | ||| ||
Db         61 TTAGAAAGTTGCATTAACCAAACTTTTAAAGATATAGA---AATCATTGTAGTAGATGAT 117

Qy        121 CCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATA 180
                 |||  | | |      |  | |    | ||| ||| |    | |||| ||||||||
Db        118 TGTGGTAATGATAAAAGTATAGATATAGCTAAAGAGTATGCTAGTAAAGATGATAGAATA 177

Qy        181 AAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAA 240
              |||||| | | |||||||||| ||| |      |  |  |       | ||| |  |||
Db        178 AAAATCATACATAATGAAGAGAATTTAAAGCTTTTAAGAGCAAGATATGAAGGTGCTAAA 237

Qy        241 ATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGA 300
              | | |     |||||  |      | ||| |||||||||  || | | | | | |
Db        238 GTAGCAACTTCACCTTATATCATGTTTTTAGATTCTGATGATTATTTAGAACTTAATGCT 297

Qy        301 TTTGATAAGCAAATTCGTTTTATGGA 326
              |  ||  |  |||    || ||||
Db        298 TGCGAAGAATGTATTAAAATTTTGGA 323


RESULT 11
US-09-134-000C-1682
; Sequence 1682, Application US/09134000C
```

; Patent No. 6617156
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
; TITLE OF INVENTION: ENTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-032
; CURRENT APPLICATION NUMBER: US/09/134,000C
; CURRENT FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/055,778
; PRIOR FILING DATE: 1997-08-15
; NUMBER OF SEQ ID NOS: 6812
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1682
; LENGTH: 1602
; TYPE: DNA
; ORGANISM: Enterococcus faecalis
US-09-134-000C-1682

Query Match 6.3%; Score 58.8; DB 4; Length 1602;
Best Local Similarity 49.1%; Pred. No. 0.00027;
Matches 156; Conservative 0; Mismatches 162; Indels 0; Gaps 0;

```
Qy         19 ATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCAGTAGAATCTATATTAAAT 78
Db        595 ATGCCAGTGTATAATGTTGAAGAAAAATGGCTTCGGTTGTGCATTGATTCTATTTTGAAT 654

Qy         79 CAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAGGTGATTTA 138
Db        655 CAAGTCTATACTAACTGGGAATTATGTATGGCCGATGACGCCTCAACAGATCCTAATGTC 714

Qy        139 AAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAA 198
Db        715 AAAAAGATTTTAACAGAGTACCAGCAATTGGATGAGCGAATTCGGGTCGTCTTTCGTGAA 774

Qy        199 GAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATAT 258
Db        775 CAAAATGGTCATATTTCCGAAGCAACCAACTCTGCTTTAGCGATTGCTACCGGAGAATTT 834

Qy        259 ATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGATTTGATAAGCAAATTCGT 318
Db        835 GTCGCCTTACTAGACAACGATGATGAATTAGCGATCAATGCTTTTTATGAAGTGGTTAAA 894

Qy        319 TTTATGGAGGAAAATTCA 336
Db        895 GTGCTGAATGAAAACCCA 912
```

RESULT 12
US-08-961-527-155/c
; Sequence 155, Application US/08961527
; Patent No. 6420135
; GENERAL INFORMATION:
; APPLICANT: Charles Kunsch
; TITLE OF INVENTION: Streptococcus pneumoniae Polynucleotides and Sequences
; NUMBER OF SEQUENCES: 391
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville
; STATE: Maryland
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
; COMPUTER: HP Vectra 486/33
; OPERATING SYSTEM: MSDOS version 6.2
; SOFTWARE: ASCII Text
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/961,527
; FILING DATE:
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Brookes, A. Anders
; REGISTRATION NUMBER: 36,373
; REFERENCE/DOCKET NUMBER: PB340P1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (301) 309-8504
; TELEFAX: (301) 309-8512
; INFORMATION FOR SEQ ID NO: 155:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 6474 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
US-08-961-527-155

Query Match 6.2%; Score 58.6; DB 4; Length 6474;
Best Local Similarity 45.2%; Pred. No. 0.00039;
Matches 303; Conservative 0; Mismatches 359; Indels 9; Gaps 2;

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Qy         44 ATTATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTTCA 103
Db       5378 AATCTCTGATTAGAGCTGTGAAAAGTTGTTTACATCAAAGTTATAAAAATATCGAAGTTA 5319

Qy        104 TAATTGTCATTGATAATCCAAGTAGAGGTGATTT---AAAGCAATTCTTAACAGAATATT 160
Db       5318 TAATTATTGATGATAATTATAGTAATGTAAATTTAAGAAATAAAATTATCCATCAATTTG 5259

Qy        161 CAGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAA 220
Db       5258 GCTATACCAATCATAGAATTAAGTTAATTTTAAGTAATGAAGATTTAGGTGCAACTAATG 5199

Qy        221 GTTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATG 280
Db       5198 CCAGAAACATAGGTATCAAAAATTCTAGAGGTAAGTATATATCATTTTTAGACGATGATG 5139

Qy        281 ATATTTCATATCCAAGTAGATTTGATAAGCAAATTCGTTTTATGGAGGAAAATTCATTGG 340
Db       5138 ATGAATATATGCCAGATCGAATTTTAAAGTTGATGGCTTGTTTTAAAAAGAGTAGAATGA 5079

Qy        341 ATTTCTCAGCAACTCTAATAGAATTGATAGACCAAAAAGGAAATTTAGTATATAAACAAC 400
Db       5078 AGAATTTAGC------TTTAGTTTGTAGTTATGGAATAATAATTTATCCAAATGGTACAC 5025

Qy        401 GAGAAAGTAATAAAATATACTTAACTAATGATATACGGAAGATGTTATTGAATAGATCTA 460
Db       5024 GAGAAGAGGAGAAGACCGATTTTGTTGGAAATCCCTTGTTTGTTCAAATGGTTCACAATA 4965

Qy        461 TACTTGCCCACCCAACGTGGTGCGTAAAAAAGAAAGTTTTCGATAAGTTAATGGGATATA 520
Db       4964 TAGCAGGTACGTCATTTTGGTTGTGTAAAAAAGAGGTGCTAGAATTAATTAATGGTTTTG 4905

Qy        521 GAGATTTAGTACCTGTTGAAGATTATGATTTTGCAATAAGAGGAGCTCTGGCTGATTTCA 580
Db       4904 AGAAAATAGATTCACATCAGGACGGTGTTGTTTTATTAAAACTACTTGTTCAAGGATACC 4845

Qy        581 AAATCGGCTTACTCAATAAAGTACTTTTACAGTATAGATTAAACGAGAATGGAATATCAC 640
Db       4844 AAATTGATATAGTGCGAGAATTCTTGGTGAATTACTACGCTCACAGTAAAGAAAACGGTA 4785

Qy        641 AAACCAATAAGTTTAAGCAATATATTTACTCAGCTATTTTACAAGATTTTTATAAAGAAA 700
Db       4784 TCACTGGAGTGACACAAAAAACAATTAATGCAGATGAAGAATATTATAATTACTGTAGGA 4725

Qy        701 AATCTTATATT 711
Db       4724 AATATTTTAAT 4714
```

RESULT 13
US-08-487-826B-13/c
; Sequence 13, Application US/08487826B
; Patent No. 5993827

```
;  GENERAL INFORMATION:
;    APPLICANT:  Sim, Kim L.
;    APPLICANT:  Chitnis, Chetan
;    APPLICANT:  Miller, Louis H.
;    APPLICANT:  Peterson, David S.
;    APPLICANT:  Su, Xin-zhaun
;    APPLICANT:  Wellems, Thomas E.
;    TITLE OF INVENTION:  BINDING DOMAINS FROM PLASMODIUM VIVAX
;    TITLE OF INVENTION:  AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
;    NUMBER OF SEQUENCES:  45
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Knobbe Martens Olson & Bear
;      STREET:  620 Newport Center Drive  16th Floor
;      CITY:  Newport Beach
;      STATE:  California
;      COUNTRY:  US
;      ZIP:  92660
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/487,826B
;      FILING DATE:  10-SEP-1993
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Israelsen, Ned
;      REGISTRATION NUMBER:  29,655
;      REFERENCE/DOCKET NUMBER:  NIH121.001CP1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (619) 235-8550
;      TELEFAX:  (619) 235-0176
;  INFORMATION FOR SEQ ID NO:  13:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  19124 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
US-08-487-826B-13

  Query Match             6.0%;  Score 56.6;  DB 2;  Length 19124;
  Best Local Similarity   43.6%;  Pred. No. 0.0013;
  Matches  363;  Conservative    0;  Mismatches  459;  Indels   11;  Gaps    2;

Qy         11 GTATCATTATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCAGTAGAATCTA 70
              ||    ||||| |    ||||    | |    | |         || | | ||    || |||
Db      18461 GTTAAATTATATTATTATAATCTCAATATGTTTTAATCGTAATAAATCATTTATAATAAT 18402

Qy         71 TATTAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAG 130
              | | |||     |   |||  |  |||| | |  || ||  | | | |  |      |
Db      18401 AAGTGAACGTATGTCTTTATATTTTTTATTATATTATAATAAATTTTTTTTTTTTTTTT 18342

Qy        131 GTGATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATAAAAATCTTGC 190
              |  |||         |  |    |||||        |||   |  |   ||||||   ||
Db      18341 TTTTTTTTTTTTGTTGATATGTAGAATTACTTTATGTTTTTTGTTTGATAAAAGAATTAA 18282

Qy        191 TTAATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGG 250
             |||  || ||   ||    |||    || |  |||   ||   |    ||    |
Db      18281 GAAATTAAAAAGGAATAAAGTTAAATAAAAATAAGAAATTAGTTATATTTATAAAAATAA 18222

Qy        251 GAGAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGAT----TTGAT 306
              |  | ||||| ||  |    ||  | ||    ||| |||   || || ||    |||
Db      18221 CAAGAAATATTATTGTATATTATATTAATTTATTTTAATAGGAAACTATATAATATTGTA 18162

Qy        307 AAGCAAATTCGTTTTATGGAGGAAAATTCATTGGATTTCTCAGCAACTCTAATAGAATTG 366
               ||||   ||||||    ||  ||  |||   |||      |    |      ||||||
Db      18161 TTATAAATAATTTTTATATGAGATTATATATTTTTTTTTCGCTCGGATTATTCAGAATTA 18102

Qy        367 ATAGACCAAAAAGGAAATTTAGTATATAAACAACGAGAAAGTAATAAAATATACTTAACT 426
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                 | ||||||  |||    |      |||||   | | |    | | | | | | | | |
Db      18101 GAGTAACAAAAATAAAACACATATATAAAACACATATATAAATACACATTTAAATAATAT 18042

Qy        427 AATGATATACGGAAGATGTTATTGAATAGATCTATACTTGCCCACCCAACGTGGTGCGTA 486
              |  |    | |    | |  | | | |||| ||  |||||  |        ||     ||  |
Db      18041 ATTATAAAATATCACAAATAAATAAATAAATTAATACTGG-------AAAAAAATGAAAA 17989

Qy        487 AAAAAGAAAGTTTTCGATAAGTTAATGGGATATAGAGATTTAGTACCTGTTGAAGATTAT 546
              ||     |||      ||||  |  ||  || | ||||| |||         |  | ||
Db      17988 AATCGAAAATAGAAGGATATATATATTAGAAAAAGAGAATTATATATATATATATATATA 17929

Qy        547 GATTTTGCAATAAGAGGAGCTCTGGCTGATTTCAAAATCGGCTTACTCAATAAAGTACTT 606
              || || | | || | |  |  |      ||    |||      | |   |   || || |
Db      17928 TATATTACGAAAAAATGTACAGAAAAAGAAACAAAATAACCATAATATACATAATTATTA 17869

Qy        607 TTACAGTATAGATTAAACGAGAATGGAATATCACAAACCAATAAGTTTAAGCAATATATT 666
              |  | |||||||  ||  |  ||   | | | |||  |   |  |  |  | |||||
Db      17868 ATCAAATATAGATACAATTATTATACTAAAAAATAAAATACATATATATATATAAATATT 17809

Qy        667 TACTCAGCTATTTTACAAGATTTTTATAAAGAAAAATCTTATATTGATATCACAAAAATT 726
                |  |||  |||| |      ||| |||||       |  | || |  |||| |
Db      17808 ATGAAAAAAATTACACAATAAGAAAGAAAAAAAAAAATCATGTTGCAAATTATTAAAAAT 17749

Qy        727 ACTAATTACTTTCAAGAGTATGTGATAAAGAAACGCTATACTCAGCAAGAGCTCTCTAAA 786
              |  |      |   |  |  | | |       | |   | ||| | | |  | | |
Db      17748 ATAATAATATGATTATAAACAAAAACATATTTTTTACAAATATACCAAAAACAATAAATA 17689

Qy        787 TATTTTGAGCTAAAATCTACCCCTAGTATTACTATTAGAAAACTATATATTTG 839
               ||  |  ||||   |   |    ||| | ||  |  | ||||| ||
Db      17688 AATAAATAAATAAATAAAATAAAAACATATACAAATAATACAAAATATATATG 17636
```

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RESULT 14
US-08-487-826B-13
; Sequence 13, Application US/08487826B
; Patent No. 5993827
;  GENERAL INFORMATION:
;    APPLICANT:  Sim, Kim L.
;    APPLICANT:  Chitnis, Chetan
;    APPLICANT:  Miller, Louis H.
;    APPLICANT:  Peterson, David S.
;    APPLICANT:  Su, Xin-zhaun
;    APPLICANT:  Wellems, Thomas E.
;    TITLE OF INVENTION:  BINDING DOMAINS FROM PLASMODIUM VIVAX
;    TITLE OF INVENTION:  AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
;    NUMBER OF SEQUENCES:  45
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Knobbe Martens Olson & Bear
;      STREET:  620 Newport Center Drive  16th Floor
;      CITY:  Newport Beach
;      STATE:  California
;      COUNTRY:  US
;      ZIP:  92660
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/487,826B
;      FILING DATE:  10-SEP-1993
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Israelsen, Ned
;      REGISTRATION NUMBER:  29,655
;      REFERENCE/DOCKET NUMBER:  NIH121.001CP1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (619) 235-8550
;      TELEFAX:  (619) 235-0176
;  INFORMATION FOR SEQ ID NO:  13:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  19124 base pairs
;      TYPE:  nucleic acid
```

```
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
US-08-487-826B-13

  Query Match             5.9%;  Score 55.6;  DB 2;  Length 19124;
  Best Local Similarity   42.5%;  Pred. No. 0.0021;
  Matches  351;  Conservative    0;  Mismatches  474;  Indels    1;  Gaps    1;

Qy         94 TTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTTAACA 153
Db      15377 TATGTGTTTTATATATATATTTTATATATATGTATTTATATTAAAAAAGAAATATAAAAA 15436

Qy        154 GAATATTCAGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGGTTTA 213
Db      15437 CAAATTTATTAAAATGAAAAAAAGAAAAATGAAATATAAAAAAAAATTTATTAAAATAAA 15496

Qy        214 GCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAATGGAT 273
Db      15497 AAAAAAAAAAAAAAAAAAGGAGAAAAATTTTTTAAAAAATAATAAAAATTATAATAAAAT 15556

Qy        274 GCTGATGATATTTCATATCCAAGTAGATTTGATAAGCAAATTCGTTTTATGGAGGAAAAT 333
Db      15557 ATAAATTTTGATAGAATAAAAAATGAAAAAGATTATCAAAAAAAAATTAAAAAAAAATTT 15616

Qy        334 TCATTGGATTTCTCAGCAACTCTAATAGAATTGATAGACCAAAAAGGAAATTTAGTATAT 393
Db      15617 TATATAAAAAAAAAATGATTATAAAAAAAATAAAAACAAAAGAAGAAAAAAAAAAACATT 15676

Qy        394 AAACAACGAGAAAGTAATAAAATATACTTAACTAATGATATACGGAAGATGTTATTGAAT 453
Db      15677 AAAAAAAAAAAAATATATATCATAAAAACAAAAAAAAAAGAAAAAAATATATTAAAATAA 15736

Qy        454 AGATCTATACTTGCCCACCCAACGTGGTGCGTAAAAAAGAAAGTTTTCGATAAGTTAATG 513
Db      15737 AAATATATATCATAAAATAAAAAAAAATTAAAAAAATGTTAAAAAAAAAATATATACATA 15796

Qy        514 GGATATAGAGATTTAGTACCTGTTGAAGATTATGATTTTGCAATAAGAGGAGCTCTGGCT 573
Db      15797 AAATAAAAAAAATTTATTTAAATAAAAAAAAATAATAAATAAAAAAATTTAATTAAATAA 15856

Qy        574 GATTTCAAAATCGGCTTACTCAATAAAGTACTTTTACAGTATAGATTAAACGAGAATGGA 633
Db      15857 AAAAAAATAATAAATAAAAAAATTTAATTAAATAAAAAAAAATTAAAAAAATTTAATGAA 15916

Qy        634 ATATCACAAACCAATAAGTTTAAGCAATATATTTACTCAGCTATTTTACAAGATTTTTAT 693
Db      15917 ATAAAAAAAAATAAAAAAATTTAATTAAATAAAAAAAAATAAAATAAAATTAATTACATGC 15976

Qy        694 AAAGAAAAAT-CTTATATTGATATCACAAAAATTACTAATTACTTTCAAGAGTATGTGAT 752
Db      15977 ACATATACATACATATATATATATATACCCATAACTACATACAACATTTACACATACA 16036

Qy        753 AAAGAAACGCTATACTCAGCAAGAGCTCTCTAAATATTTTGAGCTAAAATCTACCCCTAG 812
Db      16037 TATATATATATATATATACCCATAACTACATACACATTTACACATACATATATATATTAT 16096

Qy        813 TATTACTATTAGAAAACTATATATTTGTTTATATTTATACTTTAAGTCTCCCTTGGTTAG 872
Db      16097 ATATATATATATATATACCCATAACTACATACATATATACATTAACAAACACATATATAA 16156

Qy        873 GAGGTTATTAATAAATGATATTAATATTTTAGTACTGAAATTGTTT 918
Db      16157 TACCTAAATACATATATACATACACATATATGTTCATTTTTTTTTT 16202


RESULT 15
US-08-998-416-534/c
; Sequence 534, Application US/08998416
; Patent No. 6239264
;  GENERAL INFORMATION:
;    APPLICANT:  Philippsen, Peter
;    APPLICANT:  Pohlmann, Rainer
;    APPLICANT:  Steiner, Sabine
;    APPLICANT:  Mohr, Christine
;    APPLICANT:  Wendland, Jurgen
;    APPLICANT:  Knechtle, Philipp
;    APPLICANT:  Rebischung, Corinne
;    TITLE OF INVENTION:  GENOMIC DNA SEQUENCES OF ASHBYA GOSSYPII
;    TITLE OF INVENTION:  AND USES THEREOF
;    NUMBER OF SEQUENCES:  1152
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 6239264artis Corporation
;      STREET:  3054 Cornwallis Road
;      CITY:  Research Triangle Park
;      STATE:  No. 6239264th Carolina
;      COUNTRY:  USA
;      ZIP:  27709
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/998,416
;      FILING DATE:  24-DEC-1997
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  CH 0016/97
;      FILING DATE:  31-DEC-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  PF/5-30306/A/CGC1976
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  919-541-8587
;      TELEFAX:  919-541-8689
;  INFORMATION FOR SEQ ID NO:  534:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  854 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
;    ORIGINAL SOURCE:
;      ORGANISM:  PAG1372UP
US-08-998-416-534

  Query Match             5.4%;  Score 51;  DB 3;  Length 854;
  Best Local Similarity   45.1%;  Pred. No. 0.012;
  Matches  265;  Conservative    0;  Mismatches  320;  Indels    2;  Gaps    2;

Qy         41 TAAATTATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGT 100
Db        649 TAAAATAAATAGAAACCATAAGTTAATTGATTCATAAAGAAAATGGAATTATTTGTGGCA 590

Qy        101 TCATAATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATT 160
Db        589 TCTTAATTTTTATTATTTAATTGATTATTATCTATTTAACATAAAACATTTTAAAATGTT 530

Qy        161 CAGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAA 220
Db        529 ATAAAATAAATAAGAAATTACTTTAGAATATTTATTAAATAGTATTTAATTTAATTTTAA 470

Qy        221 GTTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATG 280
Db        469 TATTAAATATACCATTTTTATTAATAAATAGATTATTAAGTTTATTAATATTAAGTGATA 410

Qy        281 ATATTTCATATCCAAGTAGATTTGATAAGCAAATTCGTTT-TATGGAGGAAAATTCATTG 339
Db        409 TATAATTTAATTTATATAAATTATTTAATTTACTTCATTGATATATATAATTATTAAATG 350

Qy        340 GATTTCTCAGCAACTCTAATAGAATTGATAGACCAAAAAGGAAATTTAGTATATAAACAA 399
```

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Db        349 TACCTTTCATAATATTTATTTTTATTAGTCTAGTAATATTTCTATTTAATAGTCTACCCT 290

Qy        400 CGAGAAAGTAATAAAATATACTTAACTAATGATATACGGAAGATGTTATTGAATAGATCT 459

Db        289 TTAATTGGATATTACTACCTACTAAATATTTACCTA-ATAATATATTATTAAGAATACTT 231

Qy        460 ATACTTGCCCACCCAACGTGGTGCGTAAAAAAGAAAGTTTTCGATAAGTTAATGGGATAT 519

Db        230 AAATCTAATAATTTATTATCTAAAGTATATAAATTAATTAAATCTTTTTTATTATTATTT 171

Qy        520 AGAGATTTAGTACCTGTTGAAGATTATGATTTTGCAATAAGAGGAGCTCTGGCTGATTTC 579

Db        170 AAATTATTATTAATTAGTAAATTATATTTATTTATTTTATTAACATAATTTTTTGATAAT 111

Qy        580 AAAATCGGCTTACTCAATAAAGTACTTTTACAGTATAGATTAAACGA 626

Db        110 AATATATCATTATTAAATGGTAATTTATTAATAATTATCTTTAATGA 64
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Job time : 119 secs